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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,676	03/16/2004	Kenji Nakajima	Q80045	4734

23373 7590 07/25/2005

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

YU, MELANIE J

ART UNIT PAPER NUMBER

1641

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/800,676

Applicant(s)

NAKAJIMA ET AL.

Examiner

Melanie Yu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 9-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/16.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I, claims 1-8, in the reply filed on 8 June 2005 is acknowledged. Claims 9-16 are withdrawn as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because it is unclear what is meant by the phrases comparatively small mean pore diameter and comparatively large mean pore diameter. It is unclear whether the small and large mean pore diameters are comparatively large and small relative to each other. The claim recites "a layer" in lines 8 and 9 of the claim, and it is unclear whether the recited layers are the same or whether a first layer comprises a comparatively small mean pore diameter and a second layer comprises a comparatively large mean pore diameter.

Claim 2 recites "the layers" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claims. It is unclear whether "the layers" refers to a first and second layer comprising a comparatively small and large mean pore diameters, respectively. Additionally, claim 2 recites the layers of adsorptive regions connected with layers of adjacent adsorptive regions at one surface of the base plate. It is unclear whether the porous adsorptive material is filled in the holes or is partially outside of the holes in the base plate in order to

connect with layers of adjacent holes. Furthermore, it is unclear whether the layers connected over one of the layers of the base plate, or whether the porous material in the holes merely fills the holes in the base plate and the layers are then "connected" through the top or bottom surface of the base plate. With respect to the signal absorbing layer, it is unclear whether the layer passes through the base plate in order to pass through layers of small and large mean pore diameter, or whether the layer is present under the base plate below layers of adsorptive material. It is also unclear what layers are located under the base plate.

With respect to claims 3 and 4, the claims recite "in the cases" in line 2 of the claim. It is unclear whether the ratio of all comparatively large mean pore diameters to all comparatively small mean pore diameters is 1 to at most 0.7, or whether only in some cases the ratio applies. Furthermore, it is unclear whether a comparatively large mean pore diameter of 1 is intended to be a ratio to a comparatively small mean pore diameter of 0.7 or whether it is intended to encompass a numerical size for the large and small mean pore diameter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogawa (US 6,492,119).

Ogawa teaches a biochemical analysis unit comprising: a base plate (2, Fig. 1) that has a plurality of holes (3, Fig. 1); a porous adsorptive material, which is filled in each of the plurality

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of the holes of the base plate and forms each of a plurality of adsorptive regions (col. 2, lines 14-24; col. 6, lines 7-14; col. 7, lines 2-5), wherein each of the adsorptive regions is provided with a layer, which has pores having a comparatively small mean pore diameter (2a, Fig. 2; col. 2, lines 53-57), and a layer, which has pores having a comparatively large mean pore diameter (2b, Fig. 2; col. 2, lines 57-59).

With respect to claim 3, Ogawa teaches a small and large mean pore diameter size which encompasses a mean pore diameter of the comparatively large mean pore diameter taken as 1, and the mean pore diameter of the comparatively small mean pore diameter being at most 0.7 (small mean pore diameter is between 0.1 and 1.0 μm , col. 5, lines 19-22; large mean pore diameter is between 1.0 and 200 μm ; col. 7, lines 8-26 describe a small mean pore diameter of 0.2 μm and a large mean pore diameter of 10 μm , therefore if the large mean pore diameter is taken as 1, the small mean pore diameter is 0.02, which encompasses the recited at most 0.7).

Regarding claims 5 and 7, Ogawa teaches the base plate constituted of a material having light attenuating properties (hard porous body is a base plate and alumina-based ceramic material is light attenuating, col. 7, lines 9-13).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 2, 4, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (US 6,492,119) in view of Ogura (US 2002/0061534).

Ogawa, as applied to claim 1, teaches a biochemical analysis unit, but fails to teach a signal absorbing layer for absorbing a signal.

Ogura teaches a signal absorbing layer for absorbing a signal under a base plate (light absorbing materials are added to substrate par. 110; 11, Fig. 4 and 5, is a layer on the base plate 1, par. 247-248 and has light attenuating properties, therefore the support, 11, can have light absorbing materials in order to enhance light attenuating), in order to enhance light attenuating properties.

Therefore it would have been obvious to include in the biochemical analysis unit of Ogawa, a signal absorbing layer for absorbing a signal under a base plate as taught by Ogura, in order to prevent noise caused by scattering during irradiation. By placing the signal absorbing layer under the base plate of Ogawa, the signal absorbing layer passes through layers located under the base plate and propagates from a certain hole of the base plate toward an adjacent hole of the base plate. Furthermore, by placing the support (11, Fig. 4 and 5), in the holes of Ogawa, the porous layers of Ogawa would be connected between the holes and the support, 11, would

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constitute each adsorptive region with an adjacent adsorptive region at one of the surfaces of the base plate.

With respect to claims 4, 6 and 8, Ogawa, as applied to claim 3 teaches a mean pore diameter wherein the large mean pore diameter is taken as 1, and the small mean pore diameter is at most 0.7. Ogawa, as applied to claim 5, teaches a base plate constituted of a material having light attenuating properties.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Yu whose telephone number is (571) 272-2933. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melanie Yu
Patent Examiner
Art Unit 1641



LONG V. LE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

07/21/05